VPDES PERMIT PROGRAM FACT SHEET
FILE NO: 726

This document gives pertinent information concerning the VPDES Permit listed below. This permit is being processed as a **MAJOR INDUSTRIAL** permit.

1. **PERMIT NO.**: VA0004081 **EXPIRATION DATE**: January 23, 2012

2. **FACILITY NAME AND LOCAL MAILING ADDRESS**

Virginia Electric and Power Company
Dominion-Chesapeake Energy Center
5000 Dominion Blvd.
Glenn Allen, VA 23060

FACILITY LOCATION ADDRESS (IF DIFFERENT)

2701 Vepco Street
Chesapeake, VA 23320

CONTACT AT FACILITY:
NAME: Cathy Taylor
TITLE: Director, Electric Environmental Services
PHONE: (804)273-2929
EMAIL:

CONTACT AT LOCATION ADDRESS
NAME: Paul Dickson
TITLE:
PHONE: ( )
EMAIL:

3. **OWNER CONTACT**: (TO RECEIVE PERMIT)
NAME: Mr. C. D. Holley
TITLE: VP-Fossil & Hydro System Operations
COMPANY NAME:
ADDRESS:

PHONE: ( )
EMAIL:

CONSULTANT CONTACT:
NAME:
FIRM NAME:
ADDRESS:

PHONE: ( )
EMAIL:

4. **PERMIT DRAFTED BY**: DEQ, Water Permits, Regional Office

Permit Writer(s): Melinda Woodruff Date(s): 09/23/2011
Reviewed By: Mark Sauer Date(s): 11/22-23/11

5. **PERMIT ACTION**:

( ) Issuance (x) Reissuance ( ) Revoke & Reissue ( ) Owner Modification
( ) Board Modification ( ) Change of Ownership/Name [Effective Date:]

6. **SUMMARY OF SPECIFIC ATTACHMENTS LABELED AS:**

Attachment 1	Site Inspection Report/Memorandum
Attachment 2	Discharge Location/Topographic Map
Attachment 3	Schematic/Plans & Specs/Site Map/Water Balance
Attachment 4	TABLE I - Discharge/Outfall Description
Attachment 5	TABLE II - Effluent Monitoring/Limitations
Attachment 6	Effluent Limitations/Monitoring Rationale/Suitable Data/Antidegradation/Antibacksliding
Attachment 7	Special Conditions Rationale
Attachment 8	Toxics Monitoring/Toxics Reduction/WET Limit Rationale
Attachment 9	Material Stored
Attachment 10	Receiving Waters Info./Tier Determination/STORET Data/Stream Modeling
Attachment 11	303(d) Listed Segments
Attachment 12	TABLE III(a) and TABLE III(b) - Change Sheets
Attachment 13	NPDES Industrial Permit Rating Worksheet and EPA Permit Checklist
Attachment 14	Chronology Sheet
Attachment 15	Public Participation

APPLICATION COMPLETE: September 20, 2011

7. **PERMIT CHARACTERIZATION**: (Check as many as appropriate)

(x) Existing Discharge
( ) Proposed Discharge
( ) Municipal
SIC Code(s)
(x) Industrial
SIC Code(s) 4911
( ) POTW
( ) PVOTW
(x) Private
( ) Federal
( ) State
( ) Publicly-Owned Industrial

(x) Effluent Limited
(x) Water Quality Limited
( ) WET Limit
( ) Interim Limits in Permit
( ) Interim Limits in Other Document
( ) Compliance Schedule Required
( ) Site Specific WQ Criteria
( ) Variance to WQ Standards
( ) Water Effects Ratio
(x) Discharge to 303(d) Listed Segment
(x) Toxics Management Program Required
( ) Toxics Reduction Evaluation
(x) Storm Water Management Plan
( ) Pretreatment Program Required
( ) Possible Interstate Effect
( ) CBP Significant Dischargers List

8. **RECEIVING WATERS CLASSIFICATION**: River basin information.

Outfall No(s): 001 (incl.101), 002 (incl. 201, 206), 013, 015, 018, 021

Receiving Stream: Deep Creek to the southern Branch of the Elizabeth River
River Mile: see attachment 10
Basin: James River (Lower)
Subbasin: NA
Section: 1d
Class: II
Special Standard(s): a, z
Tidal: YES
7-Day/10-Year Low Flow: NA
1-Day/10-Year Low Flow: NA
30-Day/5-Year Low Flow: NA
Harmonic Mean Flow: NA

Outfall No(s): 003 (incl. 301), 004, 005, 007, 008, 009, 010, 011, 012, 016, 017, 019, 020, 030, 031
Receiving Stream: Southern Branch of the Elizabeth River
River Mile: see attachment 10
Basin: James River (Lower)
Subbasin: NA
Section: 1d
Class: II
Special Standard(s): a, z
Tidal: YES
7-Day/10-Year Low Flow: NA
1-Day/10-Year Low Flow: NA
30-Day/5-Year Low Flow: NA
Harmonic Mean Flow: NA

9. **FACILITY DESCRIPTION:** Describe the type facility from which the discharges originate.

EXISTING industrial discharge resulting from the generation of electricity with steam produced by the combustion of fossil fuels

10. **LICENSED OPERATOR REQUIREMENTS**: ( ) No (X) Yes Class: III

11. **RELIABILITY CLASS:** Industrial Facility - NA

12. **SITE INSPECTION DATE:** September 15, 2011 **REPORT DATE:** October 18, 2011

Performed By: Steve Long, Water Compliance

SEE ATTACHMENT 1

13. **DISCHARGE(S) LOCATION DESCRIPTION:** Provide USGS Topo which indicates the discharge location, significant (large) discharger(s) to the receiving stream, water intakes, and other items of interest.

Name of Topo: Norfolk South Quadrant No.: 35D **SEE ATTACHMENT 2**

14. **ATTACH A SCHEMATIC OF THE WASTEWATER TREATMENT SYSTEM(S) [IND. & MUN.]. FOR INDUSTRIAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE PRODUCTION CYCLE(S) AND ACTIVITIES. FOR MUNICIPAL FACILITIES, PROVIDE A GENERAL DESCRIPTION OF THE TREATMENT PROVIDED.**

SEE ATTACHMENT 3 (CAN ALSO REFERENCE TABLE I)

15. **DISCHARGE DESCRIPTION:** Describe each discharge originating from this facility.

SEE **TABLE I** (OR CAN SUBSTITUTE PAGE 2C) - **SEE ATTACHMENT 4**

16. **COMBINED TOTAL FLOW:**

TOTAL: 521 MGD (for public notice)

PROCESS FLOW: 519 (001) 1.37 (002) MGD (IND.)

NONPROCESS/RAINFALL DEPENDENT FLOW: 0.19 (Est.)

17. **STATUTORY OR REGULATORY BASIS FOR EFFLUENT LIMITATIONS AND SPECIAL CONDITIONS:** (Check all which are appropriate)

X State Water Control Law
X Clean Water Act
X VPDES Permit Regulation (9 VAC 25-31-10 et seq.)
X EPA NPDES Regulation (Federal Register)
X EPA Effluent Guidelines (40 CFR 133 or 400 - 471)
X Water Quality Standards (9 VAC 25-260-5 et seq.)
____ Wasteload Allocation from a TMDL or River Basin Plan

18. **EFFLUENT LIMITATIONS/MONITORING:** Provide all limitations and monitoring requirements being placed on each outfall.

SEE TABLE II - ATTACHMENT 5

19. **EFFLUENT LIMITATIONS/MONITORING RATIONALE:** Attach any analyses of an outfall by individual toxic parameter. As a minimum, it will include: statistics summary (number of data values, quantification level, expected value, variance, covariance, 97th percentile, and statistical method); wasteload allocation (acute, chronic and human health); effluent limitations determination; input data listing. Include all calculations used for each outfall and set of effluent limits and those used in any model(s). Include all calculations/documentation of any antidegradation or anti-backsliding issues in the development of any limitations; complete the review statements below. Provide a rationale for limiting internal waste streams and indicator pollutants. Attach chlorine mass balance calculations, if performed. Attach any additional information used to develop the limitations, including any applicable water quality standards calculations (acute, chronic and human health).

OTHER CONSIDERATIONS IN LIMITATIONS DEVELOPMENT:

VARIANCES/ALTERNATE LIMITATIONS: Provide justification or refutation rationale for requested variances or alternatives to required permit conditions/limitations. This includes, but is not limited to: waivers from testing requirements; variances from technology guidelines or water quality standards; WER/translator study consideration; variances from standard permit limits/conditions.

DESCRIBE IN ATTACHMENT

SUITABLE DATA: In what, if any, effluent data were considered in the establishment of effluent limitations and provide all appropriate information/calculations.

All suitable effluent data were reviewed.

ANTIDEGRADATION REVIEW: Provide all appropriate information/calculations for the antidegradation review.

The receiving stream has been classified as tier 1; therefore, no further review is needed. Permit limits have been established by determining wasteload allocations which will result in attaining and/or maintaining all water quality criteria which apply to the receiving stream, including narrative criteria. These wasteload allocations will provide for the protection and maintenance of all existing uses.

ANTIBACKSLIDING REVIEW: Indicate if antibacksliding applies to this permit and, if so, provide all appropriate information.

There are no backsliding issues to address in this permit (i.e., limits as stringent or more stringent when compared to the previous permit).
SEE ATTACHMENT 6

20. **SPECIAL CONDITIONS RATIONALE:** Provide a rationale for each of the permit's special conditions.

SEE ATTACHMENT 7

21. **TOXICS MONITORING/TOXICS REDUCTION AND WET LIMIT SPECIAL CONDITIONS RATIONALE:** Provide the justification for any toxics monitoring program and/or toxics reduction program and WET limit.

SEE ATTACHMENT 8

22. **SLUDGE DISPOSAL PLAN:** Provide a description of the sludge disposal plan (e.g., type sludge, treatment provided and disposal method). Indicate if any of the plan elements are included within the permit.

N/A

23. **MATERIAL STORED:** List the type and quantity of wastes, fluids, or pollutants being stored at this facility. Briefly describe the storage facilities and list, if any, measures taken to prevent the stored material from reaching State waters.

SEE ATTACHMENT 9

24. **RECEIVING WATERS INFORMATION:** Refer to the State Water Control Board's Water Quality Standards [e.g., River Basin Section Tables (9 VAC 25-260-5 et seq.). **Use 9 VAC 25-260-140 C (introduction and numbered paragraph) to address tidal waters where fresh water standards would be applied or transitional waters where the most stringent of fresh or salt water standards would be applied.** Attach any memoranda or other information which helped to develop permit conditions (i.e. tier determinations, PReP complaints, special water quality studies, STORET data and other biological and/or chemical data, etc.

SEE ATTACHMENT 10

25. 305(b)/**303(d) Listed Segments**: Indicate if the facility discharges to a segment that is listed on the current 303(d) list and, if so, provide all appropriate information/calculations.

This facility discharges directly to Deep Creek to the Southern Branch of the Elizabeth River and directly to the Southern Branch of the Elizabeth River. This receiving stream segment has been listed in Category 5 of the 305(b)/303(d) list for non-attainment of 1) dissolved oxygen standard for open water - summer months, 2) fish consumption due to PCB in fish tissue and Dioxin, 3) aquatic life use - benthic organisms. The permit contains a TMDL reopener clause which will allow the it to be modified, in compliance with Section 303(d)(4) of the Act once a TMDL is approved.

EPA approved the Enterococci TMDL on July 20, 2010 for the Elizabeth Watershed Report. The facility was not assigned an individual waste load allocation for Enterococci. EPA also approved Nitrogen, phosphorus and TSS TMDL for the Chesapeake Bay TMDL on December 29, 2010. This facility was listed under the Bay Segment SMEMH as a non-significant discharger. Because an aggregate WLA exists, this permit did not receive an individual WLA. The permit contains water quality based limits for TSS and TP. The permit contains monitoring for TN and Enterococci. The permit also contains a TMDL reopener to allow the permit to be modified in the future to address individual waste load allocations.

SEE ATTACHMENT 11

26. **CHANGES TO PERMIT:** Use **TABLE III(a)** to record any changes from the previous permit and the rationale for those changes. Use **TABLE III(b)** to record any changes made to the permit during the permit processing period and the rationale for those changes [i.e., use for comments from the applicant, VDH, EPA, other agencies and/or the public where comments resulted in changes to the permit limitations or any other changes associated with the special conditions or reporting requirements].

SEE ATTACHMENT 12

27. **NPDES INDUSTRIAL PERMIT RATING WORKSHEET:**

TOTAL SCORE: 600 **SEE ATTACHMENT 13**

28. **DEQ PLANNING COMMENTS RECEIVED ON DRAFT PERMIT:** Document any comments received from DEQ planning.

The discharge is in conformance with the existing planning documents for the area.

29. **PUBLIC PARTICIPATION**: Document comments/responses received during the public participation process. If comments/responses provided, especially if they result in changes to the permit, place in the attachment.

VDH/DSS COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the Virginia Dept. of Health and the Div. of Shellfish Sanitation and noted how resolved.

The VDH reviewed the application and waived their right to comment and/or object on the adequacy of the draft permit.

The DSS provided comments by letter dated September 19, 2011.

The project is located in condemned shellfish growing waters and the activity, as described, will not cause an increase in the size or type of the existing closure.

EPA COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from the U.S. Environmental Protection Agency and noted how resolved.

EPA has no objections to the adequacy of the draft permit.

ADJACENT STATE COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from an adjacent state and noted how resolved.

Not Applicable.

OTHER AGENCY COMMENTS RECEIVED ON DRAFT PERMIT: Document any comments received from any other agencies (e.g., VIMS, VMRC, DGIF, etc.) and noted how resolved.

Not Applicable.

OTHER COMMENTS RECEIVED FROM RIPARIAN OWNERS/CITIZENS ON DRAFT PERMIT: Document any comments received from other sources and note how resolved.

The application and draft permit have received public notice in accordance with the VPDES Permit Regulation. Section 9 VAC 35-31-310 of the VPDES Permit Regulation states, in part, "The Board shall hold a public hearing whenever it finds, on the basis of requests, a significant degree of public interest in a draft permit(s)."

Two comments were received during public notice. No public hearing date was scheduled based on these two comments.

SEE ATTACHMENT 15

PUBLIC NOTICE INFORMATION: Comment Period: Start Date February 17, 2012
End Date March 19, 2012

Persons may comment in writing or by e-mail to the DEQ on the proposed reissuance of the permit within 30 days from the date of the first notice. Address all comments to the contact person listed below. Written or e-mail comments shall include the name, address, and telephone number of the writer, and shall contain a complete, concise statement of the factual basis for comments. Only those comments received within this period will be considered. The Director of the DEQ may decide to hold a public hearing if public response is significant. Requests for public hearings shall state the reason why a hearing is requested, the nature of the issues proposed to be raised in the public hearing and a brief explanation of how the requestor's interests would be directly and adversely affected by the proposed permit action.

All pertinent information is on file and may be inspected, and arrangements made for copying by contacting Melinda Woodruff at: Department of Environmental Quality (DEQ), Tidewater Regional Office, 5636 Southern Boulevard, Virginia Beach, VA 23462. Telephone: 757-518-2174 E-mail: Melinda.Woodruff@deq.virginia.gov

Following the comment period, the Board will make a determination regarding the proposed reissuance. This determination will become effective, unless the Director grants a public hearing. Due notice of any public hearing will be given.

30. **ADDITIONAL FACT SHEET COMMENTS/PERTINENT INFORMATION:**

ATTACHMENT 1

SITE INSPECTION REPORT/MEMORANDUM

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Maria R. Nold
Regional Director

November 1, 2011

Paul E. Dickson – Environmental Supervisor
Dominion – Chesapeake Energy Center
2701 Vepco Rd.
Chesapeake, VA 23323

Re: Technical Inspection Report,
Dominion – Chesapeake Energy Center (VA0004081)

Dear Mr. Dickson:

Enclosed is a copy of the technical inspection report prepared for the inspection conducted on September 15, 2011. Please note the deficiencies cited in this report and implement appropriate corrective measures in order to ensure continued permit compliance. Within thirty (30) days of receipt of this letter, you are requested to submit a letter documenting that the necessary corrections have been made.

This letter is not intended as a case decision under the Virginia Administrative Process Act, Va. Code § 2.2-4000 *et seq.*

If you have any questions regarding this report, please feel free to contact me at the above address or telephone (757) 518-2027.

Sincerely,

Steven J.E. Long
Environmental Specialist II

Enclosure

cc: DEQ/OWCP: S.G. Stell
DEQ/TRO: File

Facility:	Dominion – Chesapeake Energy Center
County/city:	Chesapeake

VPDES NO.	VA0004081

DEPARTMENT OF ENVIRONMENTAL QUALITY
WASTEWATER FACILITY
INSPECTION REPORT
PART 1

Inspection date:	**September 15, 2011**	Date form completed:	**October 18, 2011**
Inspection by:	**Steven J.E. Long**	Inspection agency:	**DEQ/TRO**
Time spent:	**10 hours**	Announced Inspection:	[ ] Yes [√] No
Reviewed by: **Kenneth T. Raum / 10-21-11**		Photographs taken at site?	[√] Yes [ ] No
Present at inspection:	**Paul E. Dickson – Environmental Supervisor** **Melinda Woodruff – DEQ Permit writer**		

FACILITY TYPE:	FACILITY CLASS:
( ) Municipal	(√) Major
(√) Industrial	( ) Minor
( ) Federal	( ) Small
( ) VPA/NDC	( ) High Priority ( ) Low Priority

TYPE OF INSPECTION:					
Routine	√	Reinspection		Compliance/assistance/complaint	
Date of previous inspection:		**3/29/10**	Agency:	**DEQ/TRO**	

Population Served:		Connections Served	

Last Month Average Effluent: Outfall 001	TP (mg/l)	**0.16**	TRC (mg/l)	**<QL**	Flow (MGD)	**618**	pH (s.u.)	**7.4 - 7.5**
	Other:							
Last Month Average Effluent: Outfall 002	TP (mg/l)	**0.20**	TSS (mg/l)	**19**	Flow (MGD)	**0.598**	pH (s.u.)	**8.1 - 8.4**
	Other: **TN = <0.30 mg/L, O&G = 5.0 mg/L, NH_3 = <QL**							
Last Month Average Effluent: Outfall 003 1st Semi-Annual 2011	TPH (mg/l)	*	TSS (mg/l)	**12**	Flow (MGD)	**0.247**	pH (s.u.)	**7.3**
	Other: **Cu = <QL, Zn = 46 ug/L (dissolved metals)**							

Data verified in preface:	Updated?		NO CHANGES?	√
Has there been any new construction?	YES		NO	√
If yes, were the plans and specifications approved?	YES		NO	**na**
DEQ approval date:	**na**			

COPIES TO: (x) DEQ/TRO; (x) DEQ/OWCP; (x) OWNER; ( ) OPERATOR; ( ) EPA-Region III; ( ) Other:

See Inspection Comments in the Summary section of this report for all items marked with an asterisk or an X.

	PLANT OPERATION AND MAINTENANCE											
1.	Class/number of licensed operators:	I	**1**	II		III	**1**	IV		Trainee		
2.	Hours per day plant manned?	**24 hours per day, 7 days per week**										
3.	Describe adequacy of staffing	GOOD	√	AVERAGE		POOR						
4.	Does the plant have an established program for training personnel	YES	√	NO								
5.	Describe the adequacy of training	GOOD	√	AVERAGE		POOR						
6.	Are preventative maintenance tasks scheduled	YES	√	NO								
7.	Describe the adequacy of maintenance	GOOD	√	AVERAGE		POOR						
	Does the plant experience any organic/hydraulic overloading?	YES		NO	√							
8.	If yes, identify cause/impact on plant	**na**										
9.	Any bypassing since last inspection?	YES		NO	√							
10.	Is the standby electrical generator operational?	YES		NO		NA	√					
	How often is the standby generator exercised?	**na**										
11.	Power transfer switch?	**na**	ALARM SYSTEM?	**na**								
12.	When was the cross connection last tested on the potable supply?	**na**										
13.	Is the STP alarm system operational?	YES		NO		NA	√					
14.	Is sludge disposed in accordance with an approved SMP	YES		NO		NA	√					
15.	Is septage received by the facility?	YES		NO	√							
	Is septage loading controlled?	YES		NO		NA	√					
	Are records maintained?	YES		NO		NA	√					

OVERALL APPEARANCE OF FACILITY	GOOD	√	AVERAGE		POOR	

	PLANT RECORDS							
	WHICH OF THE FOLLOWING RECORDS DOES THE PLANT MAINTAIN?							
	Operational logs for each process unit	YES	√	NO		NA		
	Instrument maintenance and calibration	YES	√	NO		NA		
	Mechanical equipment maintenance	YES	√	NO		NA		
1.	Industrial waste contribution (municipal facilities)	YES		NO		NA	√	

	WHAT DOES THE OPERATIONAL LOG CONTAIN					
	Visual Observations	√	Flow Measurement	√	Laboratory Results	√
2.	Process Adjustments		Control Calculations		Other?	

COMMENTS: **Laboratory records and activity logs are maintained.**

	WHAT DO THE MECHANICAL EQUIPMENT RECORDS CONTAIN?					NA	√
	MFG. Instructions	√	As Built Plans/specs	√	Spare Parts Inventory		√
3.	Lube Schedules	√	Other?	√	Equipment/parts Suppliers		√

COMMENTS:

	WHAT DO INDUSTRIAL WASTE CONTRIBUTION RECORDS CONTAIN? (MUNICIPAL)			NA	√
	Waste Characteristics		Impact on Plant		
4.	Location and Discharge Types		Other?		

COMMENTS:

	WHICH OF THE FOLLOWING RECORDS ARE AT THE PLANT & AVAILABLE TO PERSONNEL?					NA	
	Equipment Maintenance Records	√	Industrial Contributor Records				
5.	Operational Log	√	Sampling/testing Records	√	Instrumentation Records		√

6.	Records not normally available to personnel at their location:	**Na**			
7.	Were the records reviewed during the inspection	YES		NO	√*
8.	Are records adequate and the O&M manual current?	YES	√	NO	
9.	Are the records maintained for the required 3-year time period	YES	√	NO	

COMMENTS: ***Records obtained and reviewed after the site visit.**

SAMPLING											
1.	Are sampling locations capable of providing representative samples?					YES	√	NO	
2.	Do sample types correspond to VPDES permit requirements?					YES	√*	NO	
3.	Do sampling frequencies correspond to VPDES permit requirements?					YES	√	NO	
4.	Does plant maintain required records of sampling?					YES	√	NO	
5.	Are composite samples collected in proportion to flow?	YES		NO		NA	√
6.	Are composite samples refrigerated during collection?	YES		NO		NA	√
7.	Does the plant run operational control tests?	YES		NO		NA	√
COMMENTS: **See laboratory report for additional information concerning sampling.**											

TESTING							
	Who performs the testing?	Plant	√	Central Lab	√	Commercial Lab	√
1.	Name: **Plant performs field testing. Central and Commercial laboratory performs laboratory analyses.**						
IF THE PLANT PERFORMS ANY TESTING, PLEASE COMPLETE QUESTIONS 2-4							
2.	Which total residual chlorine method is used?	**Hach Pocket colorimeter; Std Mth 4500-Cl, G**					
3.	Does plant appear to have sufficient equipment to perform required tests?	YES	*	NO			
4.	Does testing equipment appear to be clean and/or operable?	YES	*	NO			
COMMENTS: ***Laboratory equipment not observed.**							

FOR INDUSTRIAL FACILITIES WITH TECHNOLOGY BASED LIMITS ONLY								
1.	Is the production process as described in permit application? If no, describe changes in comments section.	YES		NO		NA	√
2.	Are products/production rates as described in the permit application? If no list differences in comments section.	YES		NO		NA	√
3.	Has the Agency been notified of the changes and their impact on plant effluent? Date agency notified:	YES		NO		NA	√
COMMENTS:								

	PROBLEMS IDENTIFIED AT LAST INSPECTION:	CORRECTED	NOT CORRECTED
	None noted.		

SUMMARY

	INSPECTION COMMENTS:
	Arrived on site at 0945 to perform unannounced inspection and reached Mr. Paul Dickson through the security office. Mr. Dickson was off site at the time though made arrangements to return to the facility at 1100. Agency personnel returned to the site at 1100 and met with Mr. Dickson. Discussed the site visit including a review and familiarization for Ms. Melinda Woodruff the facility's permit writer. A site survey was conducted reviewing a majority of the site though not all areas were observed. No housekeeping issues were noted from the survey with the site appearing to be well managed.
	A review of the Stormwater Pollution Prevention Plan (SWP3) finds a well prepared document. The plan date is November 2009 and was signed, including the non-stormwater certification December 2009. The last non-stormwater discharge assessment and certification was signed June 2011. The plan provides that inspections are performed on a weekly, monthly and quarterly basis. Inspection records were provided and well documented and detailed. Training is performed annually and is also well documented with training last performed October 2010. The comprehensive site compliance evaluation is conducted annually and is also well prepared. The last inspection was conducted December 2010 and detailed the scope of the inspection, but did not identify any non-compliance issues for the summary report. Two action items were identified for Outfalls 016 and 010 and were completed within the month. The evaluation is signed but does not include the certification reference in Part I.F.4.d.4.(c) stating that the evaluation is to be signed according to Part II.K. This has been discussed with the facility contact and a certification required by Part II.K has been added. Representative discharges are noted in the Permit with Outfall 016 representing Outfall 017. A review of the SWP3 finds nothing in the plan for the representative sampling. Part I.F.3.d of the Permit provides that representative sampling is acceptable though there is information required to be included in the SWP3. Representative monitoring is also allowed for the quarterly visual monitoring required under Part I.F.3.e though from the records review it appears that sampling for this monitoring is performed at Outfall 017. Facility personnel will be reviewing this requirement and making additions as needed for resolution. Page 41 of the SWP3 details the "regularly occurring discharges of allowable non-stormwater discharges" as required by Part I.F.3.g.2. This includes "fire fighting activities" which should not be a "regularly occurring discharge". This item is to be eliminated from the SWP3. Page 41 also lists routine wash down – "As necessary to control slip hazards created in wet areas". From this description it was not clear which of the non-stormwater discharges this was considered. Facility contact provides this is pavement wash down water, 'item g' as referenced in the Permit. Additional information is to be added to the SWP3 clarifying the use of this wash water to support it as an authorized non-stormwater discharge. Outfall 016 and 017 are included in a Stormwater Management Evaluation for dissolved zinc and Outfalls 011, 012, 016 and 030 for toxicity. A report is due each February with the last report received February 9, 2011.

INSPECTION COMMENTS (continued):	
	Quarterly visual monitoring is performed and also well documented. There are several instances where the discharge is reported with poor qualities. Typical visual qualities included colored (gray/black and slight brown), and reported some discharges had turbidity. Many of these are attributed to plant decomposition though there were some reported issues with coal fines and fly ash. Nothing in the report provides for the evaluation of the current best management practices or if additional practices are needed to reduce or eliminate the pollutants from leaving the site. Odor was reported in several examinations; some reported to have a strong sulfur smell while others only reported a "slight odor" with no further explanation. The sulfur smell could be from naturally occurring sulfur compounds. When an odor is reported additional information concerning the type of odor encountered should be provided along with its potential source. Mr. Dickson provided that there is additional information included in the activity logs that will provide for corrective actions. It was suggested that a direct connection from the observations made and any of their eventual corrective actions applied be either referenced or included with the quarterly visual examination.
	Areas observed during the site survey included: • Outfall 001 discharge channel • Metals cleaning waste pond • Coal Pile and coal pile runoff treatment pond • AST associated with Outfall 301 • Outfall 003, 011 and 012 • The screen wells for the cooling water intake • Chlorination building • Drainage areas around Outfalls 010, 016 and 017 • The perimeter road for the ash landfill • The oil waste pond, bottom ash pond and Outfall 002 area. • Outfall 018 areas There were no problems observed throughout these areas with the roadway and major industrial areas that were observed being well managed. Considering the industrial activity, the site did appear to be very clean.
	Observations at Outfall 001 found a discolored area at the headwaters. Mr. Dickson provided that this change in color is likely from air bubbles that are coming to the surface of the tannin rich waters. Attached photographs do show this discolored area from the center of the channel following the land and concentrated near rocks at the shoreline. It was later found that a discharge was occurring from the demineralizer at the time of our observations. It is possible that the demineralizer discharge, containing very fine bubbles, created the discoloration. The start of the discolored water is in the vicinity of the discharge pipe for the demineralizer with the bubbles coming to the surface downstream. To verify this it is suggested that the discharge point be observed during demineralizer discharges to confirm that that the discoloration is from the bubbles. This could be compared to the actual demineralizer discharge that is typically clear and colorless.
	The area around the truck wash facility near Outfall 016 was observed with some concerns for water discharging from this facility. Water in puddles was observed and there is some indication that water is running over the road and into the curb. The source of this water was not known nor was an actual discharge of water observed. This is not believed to be from rainfall with the last rain event occurring over six days ago. (Rainfall is documented on the 15th but occurred later in the night.) This must to be reviewed during truck washing to determine if there is a potential for the process wastewater to discharge. If there is a potential for the loss of the process wastewater, steps are needed to ensure that this water is not discharged or the facility must apply for a modification of the permit to account for this discharge.

INSPECTION COMMENTS (continued):	
	The final area observed was for Outfall 018. Upon reviewing the permit, maps and the recent permit application it was noted that Outfall 018 show four different discharge points. The drainage area included for these discharges include the metals cleaning waste pond, the switch yard, parking lots, and open fields. These areas are considered industrially regulated with monitoring not required. The site map shows these areas discharging to "wetlands". The wetlands are then shown to flow to the east and out four culvert pipes to the discharge canal. The actual discharges should be from the drainage discharges that go into the wetlands and should be shown as separate discharge points. The wetland discharge to the drainage ditch does not need to be noted as a discharge point. This will be addressed with the Permit writer and should be resolved with the issuance of the new Permit.

COMPLIANCE RECOMMENDATIONS FOR ACTION	
	Include all information as specified in the Permit under Part I.F.3.d for the representative sampling of Outfall 016 for Outfall 017.
	Review the truck wash facility in the drainage area for Outfall 016 during washing operations and determine if there is a discharge of wastewater from this area. Eliminate any potential for discharge or apply for a permit modification.

UNIT PROCESS:	Industrial Pond Metals Cleaning Waste Pond Oily Waste Pond

		YES	NO	NA
1.	Type of filters: Aerated [ ] Polishing [ ] Unaerated [√]			
2.	Number of cells: **one cell for both ponds**			
3.	Number cells in operation: **one each**			
	Operation of system			
4.	Series [√] Parallel [ ] Other: [ ]			
	Color: Light Brown [ ]			
5.	Gray **Oily** Brown [ ] Green **Metals** Other: [ ]			
	EVIDENCE OF THE FOLLOWING PROBLEMS:			
	Vegetation in lagoon or dikes?		√	
	Rodents burrowing on dikes?		√	
	Erosion?		√	
	Sludge bars?	√		
	Excessive foam?		√	
6.	Floating material?		√	
7.	If aerated, are lagoon contents mixed adequately?			√
8.	If aerated, is aeration system operating properly?			√
9.	Odors: Septic [ ] Earthy [ ] None [√] Other: [ ]			
10.	Fencing intact?	√		
11.	Grass maintained properly?	√		
12.	Level control valves working properly?			√
13.	Effluent discharge elevation? Top [ ] Middle [√] Bottom [√]			
14.	Freeboard			
15.	Appearance of effluent? GOOD [√] FAIR [ ] POOR [ ]			
	Are monitoring wells present? **Placement of monitoring wells was not checked.**			
	Are wells adequately protected from runoff?			
16.	Are caps on and secured?			

GENERAL CONDITION:	GOOD	√	FAIR		POOR	

COMMENTS:	**Both of these ponds are lined. Solids (sludge bar) was observed in the oily waste pond near the**

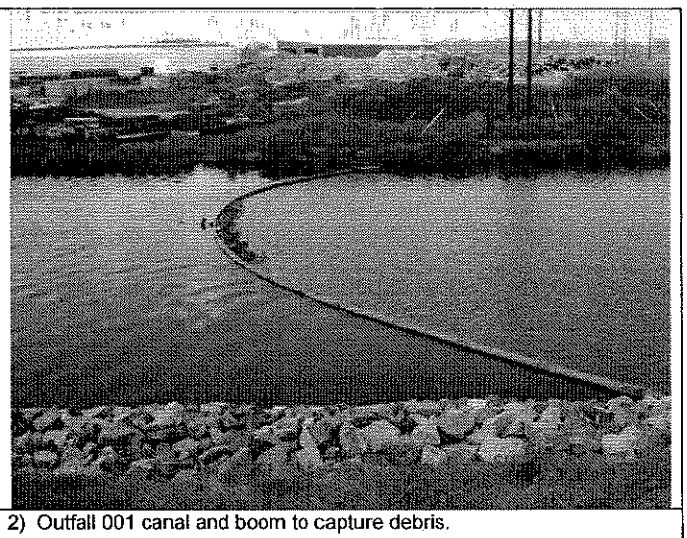
UNIT PROCESS:	**EFFLUENT/PLANT OUTFALL**

									YES	NO	NA
1.	Type of outfall		Shore Based	√	Submerged	√					
	TYPE IF SHORE BASED:										
2.	Wingwall		Headwall	√	Rip Rap	√	Pipe	√			
3.	Flapper valve present?									√	
4.	Erosion of bank area?									√	
5.	Effluent plume visible?									√	
	Condition of outfall and the supporting structure?										
6.	GOOD	√	FAIR		POOR						
	FINAL EFFLUENT, EVIDENCE OF FOLLOWING PROBLEMS?										
	Oil sheen?									√	
	Grease?									√	
	Sludge bar?									√	
	Turbid effluent?									√	
	Visible foam?									*	
7.	Unusual color?									√	

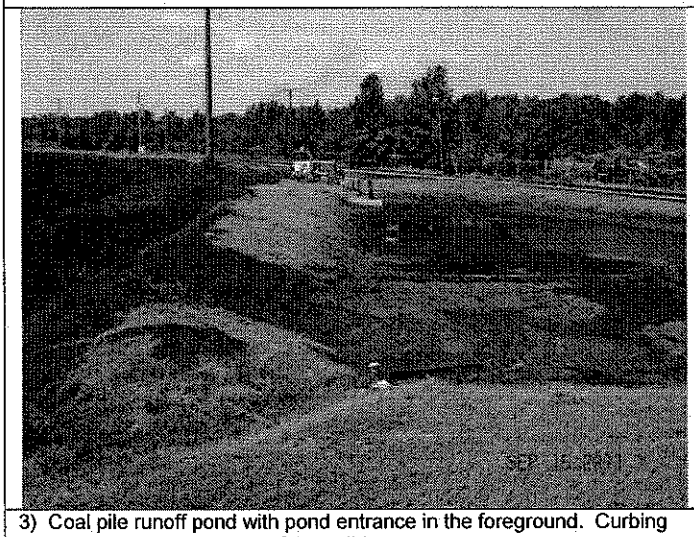
GENERAL CONDITION	GOOD	√	FAIR		POOR	

COMMENTS:	**Outfalls 001, 002, 003, 010, 016, 017, and 018 were observed without a specific issue. Foam was observed in the headwaters of Outfall 001 but was not discharged at the end of the canal. Outfall 016 needs to be checked for discharges when truck washing is occurring.**

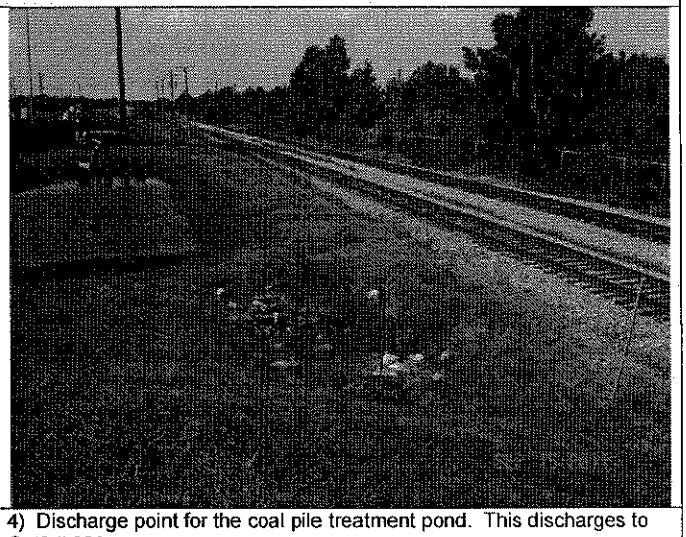
1) Headwaters of Outfall 001. Discolored water can be seen from the middle of the canal to the rocks. This could be from the discharge from Outfall 101 and bubbles resulting from the demineralizer discharge.



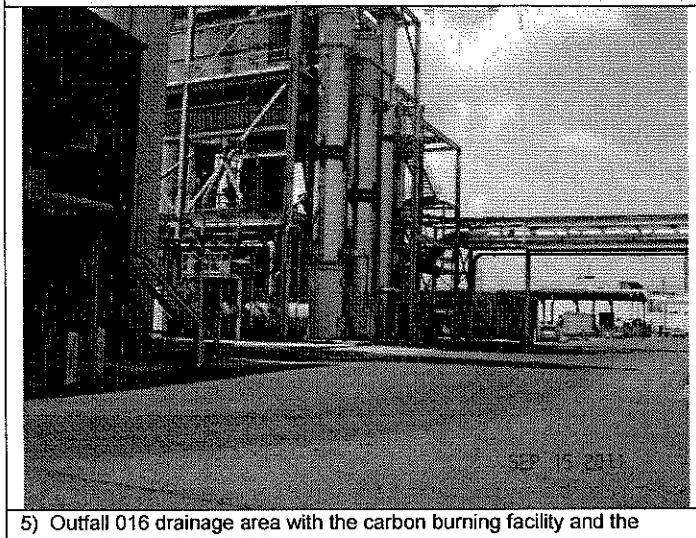
2) Outfall 001 canal and boom to capture debris.



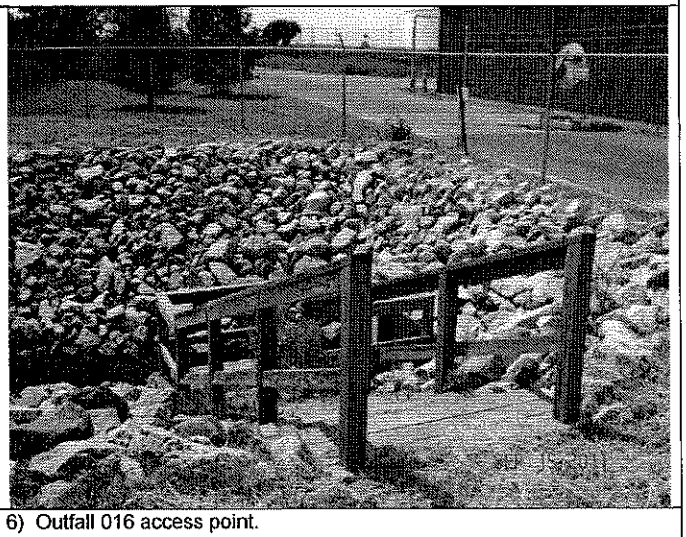
3) Coal pile runoff pond with pond entrance in the foreground. Curbing is in place to capture some of the solids.



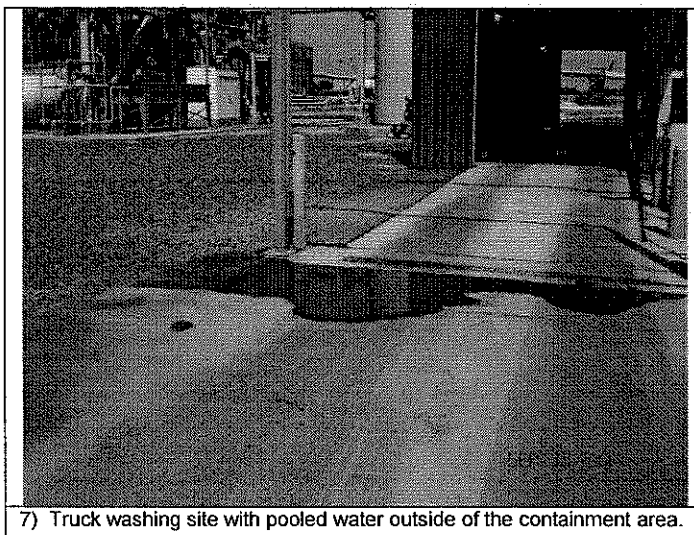
4) Discharge point for the coal pile treatment pond. This discharges to Outfall 003.



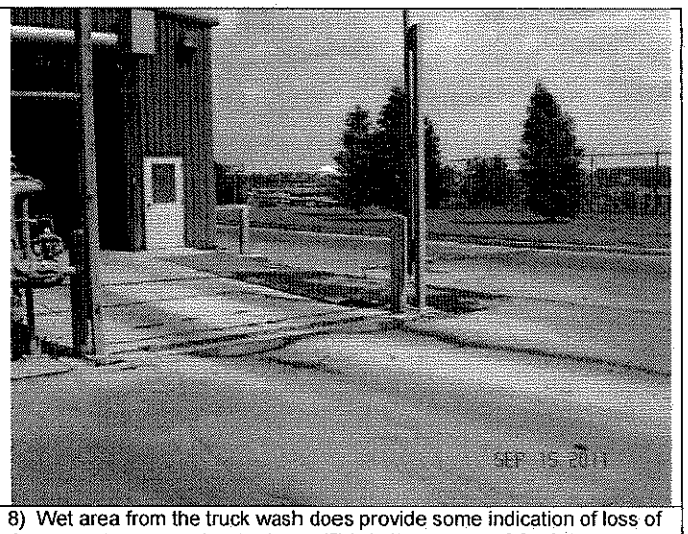
5) Outfall 016 drainage area with the carbon burning facility and the truck wash in the blue building.



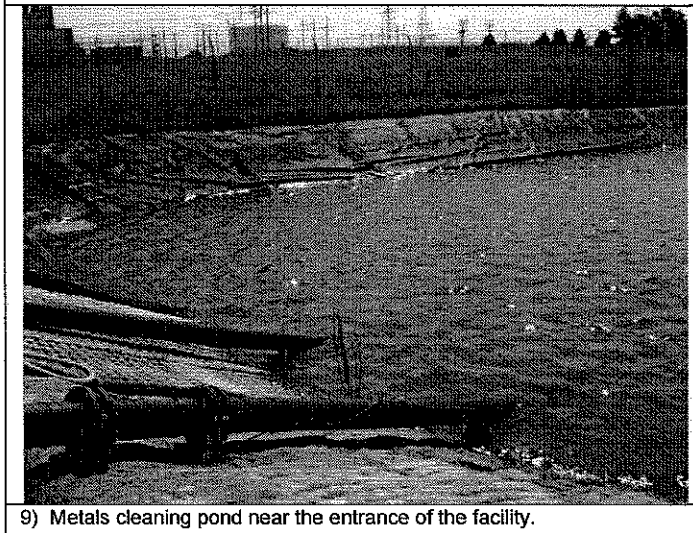
6) Outfall 016 access point.



7) Truck washing site with pooled water outside of the containment area.

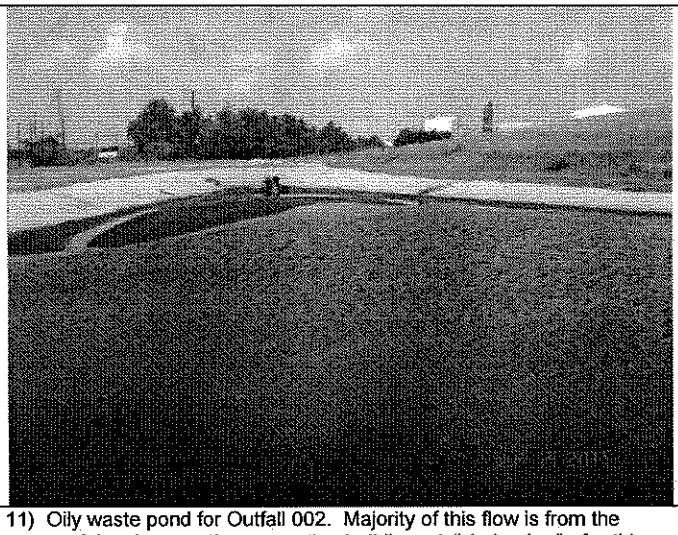


8) Wet area from the truck wash does provide some indication of loss of the process water to the roadway. This is in the area of Outfall 016 which is a 'stormwater-only' discharge. This should be reviewed during operations to determine if a discharge is occurring.

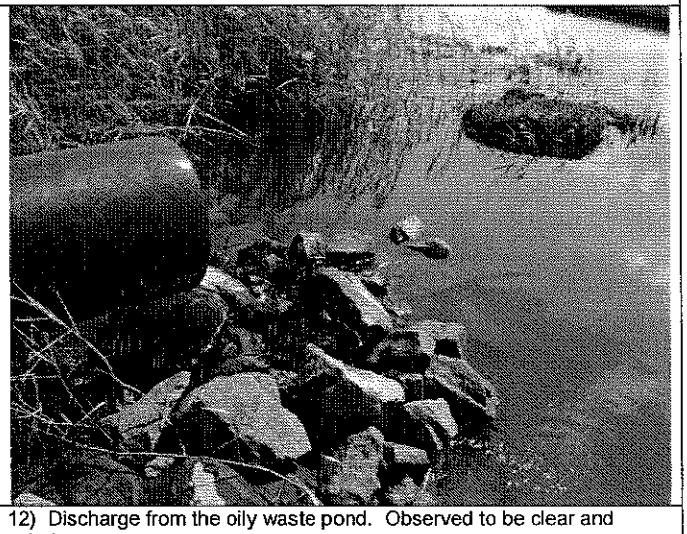


9) Metals cleaning pond near the entrance of the facility.

10) Discharge pipe for the metals cleaning pond at bottom ash pond.



11) Oily waste pond for Outfall 002. Majority of this flow is from the center of the site near the generation building. A "sludge bar" of solids was observed at the entrance pipe to this pond.



12) Discharge from the oily waste pond. Observed to be clear and colorless.

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462
(757) 518-2000 Fax (757) 518-2009
www.deq.virginia.gov

Doug Domenech
Secretary of Natural Resources

David K. Paylor
Director

Francis L. Daniel
Regional Director

November 1, 2011

Paul E. Dickson – Environmental Supervisor
Dominion – Chesapeake Energy Center
2701 Vepco Rd.
Chesapeake, VA 23323

Re: Laboratory Inspection
Chesapeake Energy Center (VA0004081)

Dear Mr. Dickson:

Enclosed is a copy of the inspection report for the laboratory records review associated with the site visit on September 15, 2011. Please note that the Laboratory Evaluation Section of the report identifies that the Laboratory Records Section requires correction. The report identifies the specific deficiencies and makes recommendations for corrective measures. The General Sampling and Analysis section further identifies an issue with sampling procedures for one of the internal Outfalls. Though this item is not considered a deficiency, it is addressed in this report.

In view of the significance attached to proper sampling and analysis of samples for use in complying with the terms of your VPDES/VPA permit, please review the attached report and make the appropriate corrections to ensure permit compliance. To avoid possible enforcement action, within twenty (20) days of receipt of this letter send a written notification to this office of the corrective measures that you have implemented. If you have not taken corrective action and/or responded to this office in writing by the above deadline, this matter will be referred to the Regional Compliance Auditor and a Warning Letter (WL) may be issued.

This letter is not intended as a case decision under the Virginia Administrative Process Act, Va. Code § 2.2-4000 *et seq.* If you have any questions regarding this report, please contact me or Mr. Kenneth T. Raum at the above address or telephone (757) 518-2000.

Sincerely,

Steven J.E. Long
Environmental Specialist II

Enclosure
cc: DEQ/OWCP: S.G. Stell
DEQ/TRO: File

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
LABORATORY INSPECTION REPORT

10/01

FACILITY NO:	INSPECTION DATE:	PREVIOUS INSP. DATE:	PREVIOUS EVALUATION:	TIME SPENT:
VA004081	9/15/11	3/25/10	No deficiencies	10 hours

NAME/ADDRESS OF FACILITY:	FACILITY CLASS:	FACILITY TYPE:	UNANNOUNCED INSPECTION?
Dominion – Chesapeake Energy Center 2701 Vepco Rd. Chesapeake, VA 23323	(√) MAJOR ( ) MINOR ( ) SMALL ( ) HIGH PRIORITY ( ) LOW PRIORITY	( ) MUNICIPAL (√) INDUSTRIAL ( ) FEDERAL ( ) VPA/NDC ( ) COMMERCIAL LAB	(√) YES ( ) NO **FY-SCHEDULED INSPECTION?** (√) YES ( ) NO

INSPECTOR(S):	REVIEWERS:	PRESENT AT INSPECTION:
Steven J.E. Long	**Kenneth T. Raum / 10-21-11**	**Paul Dickson – Environmental Supervisor**

LABORATORY EVALUATION	DEFICIENCIES? Yes	No
LABORATORY RECORDS	X	
GENERAL SAMPLING & ANALYSIS		*
This report is based on a records review only for those records associated with the site visit performed September 15, 2011.		

QUALITY ASSURANCE/QUALITY CONTROL

Y/N	QUALITY ASSURANCE METHOD	PARAMETERS	FREQUENCY
	REPLICATE SAMPLES		
	SPIKED SAMPLES		
	STANDARD SAMPLES		
	SPLIT SAMPLES		
	SAMPLE BLANKS		
	OTHER		
	EPA-DMR QA DATA?	RATING: ( ) No Deficiency ( ) Deficiency (X) NA	
	QC SAMPLES PROVIDED?	RATING: ( ) No Deficiency ( ) Deficiency (X) NA	

COPIES TO: (x) DEQ - RO; (x) OWCP; ( ) VDH-DWE; (x) OWNER; ( ) EPA-Region III; ( ) Other:

LABORATORY RECORDS SECTION

LABORATORY RECORDS INCLUDE THE FOLLOWING:

√	SAMPLING DATE	√	ANALYSIS DATE		CONT MONITORING CHART
√	SAMPLING TIME	√	ANALYSIS TIME	√	INSTRUMENT CALIBRATION
√	SAMPLE LOCATION	√	TEST METHOD	√	INSTRUMENT MAINTENANCE
				√	CERTIFICATE OF ANALYSIS

WRITTEN INSTRUCTIONS INCLUDE THE FOLLOWING:

	SAMPLING SCHEDULES		CALCULATIONS		ANALYSIS PROCEDURES

	YES	NO	N/A
DO ALL ANALYSTS INITIAL THEIR WORK?			√
DO BENCH SHEETS INCLUDE ALL INFORMATION NECESSARY TO DETERMINE RESULTS?			√
IS THE DMR COMPLETE AND CORRECT? MONTH(S) REVIEWED: See comments below.		X	
ARE ALL MONITORING VALUES REQUIRED BY THE PERMIT REPORTED?		X	

GENERAL SAMPLING AND ANALYSIS SECTION

	YES	NO	N/A
ARE SAMPLE LOCATION(S) ACCORDING TO PERMIT REQUIREMENTS?	√		
ARE SAMPLE COLLECTION PROCEDURES APPROPRIATE?	√*		
IS SAMPLE EQUIPMENT CONDITION ADEQUATE?			√
IS FLOW MEASUREMENT ACCORDING TO PERMIT REQUIREMENTS?	√		
ARE COMPOSITE SAMPLES REPRESENTATIVE OF FLOW?			√
ARE SAMPLE HOLDING TIMES AND PRESERVATION ADEQUATE?	√*		
IF ANALYSIS IS PERFORMED AT ANOTHER LOCATION, ARE SHIPPING PROCEDURES ADEQUATE? LIST PARAMETERS AND NAME & ADDRESS OF LAB: **Dominion Central Laboratory; Universal Laboratories**	√		

LABORATORY EQUIPMENT SECTION

	YES	NO	N/A
IS LABORATORY EQUIPMENT IN PROPER OPERATING RANGE?			√
ARE ANNUAL THERMOMETER CALIBRATION(S) ADEQUATE?			√
IS THE LABORATORY GRADE WATER SUPPLY ADEQUATE?			√
ARE ANALYTICAL BALANCE(S) ADEQUATE?			√

FOR ASTERISK ITEMS (*) SEE LABORATORY INSPECTION REPORT SUMMARY PAGES FOR DETAILS.

DEPARTMENT OF ENVIRONMENTAL QUALITY - WATER DIVISION
LABORATORY INSPECTION REPORT SUMMARY

10/01

FACILITY NAME:	Dominion – Chesapeake Energy Center	VPDES NO:	VA0004081	INSP. DATE:	9/15/11

LABORATORY RATING		
		NO DEFICIENCIES
	X	DEFICIENCIES

LABORATORY RECORDS

Records reviewed: pH, calibration, Chlorine calibration, Technicians demonstration of initial competency, and the following monitoring periods and Discharge Monitoring Report :
November 2010 – Outfall 201
January 2011 – Outfalls 001, 002, and 206
1st Quarter 2011 – Outfalls 101, 301, 016 and 017.
1st Semi-annual 2011 – Outfalls 003, 010, 030, and 031

The Laboratory Records section has the following deficiencies:

- The Quantification Limit (QL) for TSS is defined in the Permit at 1.0 mg/L (Page 20, Part I.D.5.a). Part I.D.6.a provides that If all data are below the QL, then the average shall be reported as <QL. Part I.D.6.c states that "Any single datum required shall be reported as <QL if it is less than the QL listed in Part I.D.5.a.". Outfall 101 for the 1st quarter 2011 shows a result of <1.0 mg/L versus <QL.
- Dissolved zinc for Outfall 003 for the 1st semi-annual monitoring is reported as 46 ug/L. This parameter has a defined quantification limit of 50 ug/L. The correct reporting should be <QL.
- The TPH for Outfall 003 for the 1st semi-annual monitoring is NOT reported. Results were observed in the analytical data. This appears to be an omission. This has been reviewed with correction pending resolution of the TPH reporting noted below.
- TPH reporting when two fractions (DRO and GRO) are reported as "less than" should be reported as < the total of the two quantification limits. For the records reviewed both fractions were reported as <0.5 mg/L; the correct value should be reported as <1.0 mg/L. This issue was observed for several reports. Information for reporting the TPH was provided and is under review by facility personnel and considered resolved pending that review.
- Dissolved metals filtration not indicated on the reported on the Chemical Analysis Order for Outfall 003 sampled on 1/18/11. Dissolved metals filtration is reported for Outfall 011 but a time is not given. This issue has been resolved noting that the sampling procedure includes inline filtration of the sample upon its collection. This is to be included on the order sheet or the chain of custody to eliminate questions of this nature.

Corrective Actions: The following items have been discussed and resolved:

Properly report all parameters adhering to correct reporting criteria for those parameters with defined quantification limits. For those parameters that do not have defined quantification limits, report "less than" and the actual numerical value of the quantification limit as reported by the laboratory. Report the TPH parameter using the convention as provided via email. Include information as discussed for the field filtration of the dissolved metals.

The only item needing further resolution is submission of the corrected Discharge Monitoring Report for Outfall 003 that includes the TPH results.

GENERAL SAMPLING AND ANALYSIS

The General Sampling and Analysis section has the following item for sampling (Not considered a deficiency):

Outfall 201 is a grab sample of the metals cleaning basin. The Permit provides that sample shall be collected at the tap in the recirculation line at the pond. The Permit further states that "No wastewater shall be added to the basin after sample is collected prior to discharge for the sample period".

Current operating procedures provide for the sampling and the analysis of the pond at the tap with the discharge pending the results of this re-circulated pond water. Once the results are obtained and found to be within the Permit limits, a discharge is initiated and the results from the recirculation line are reported. An actual discharge sample is not taken.

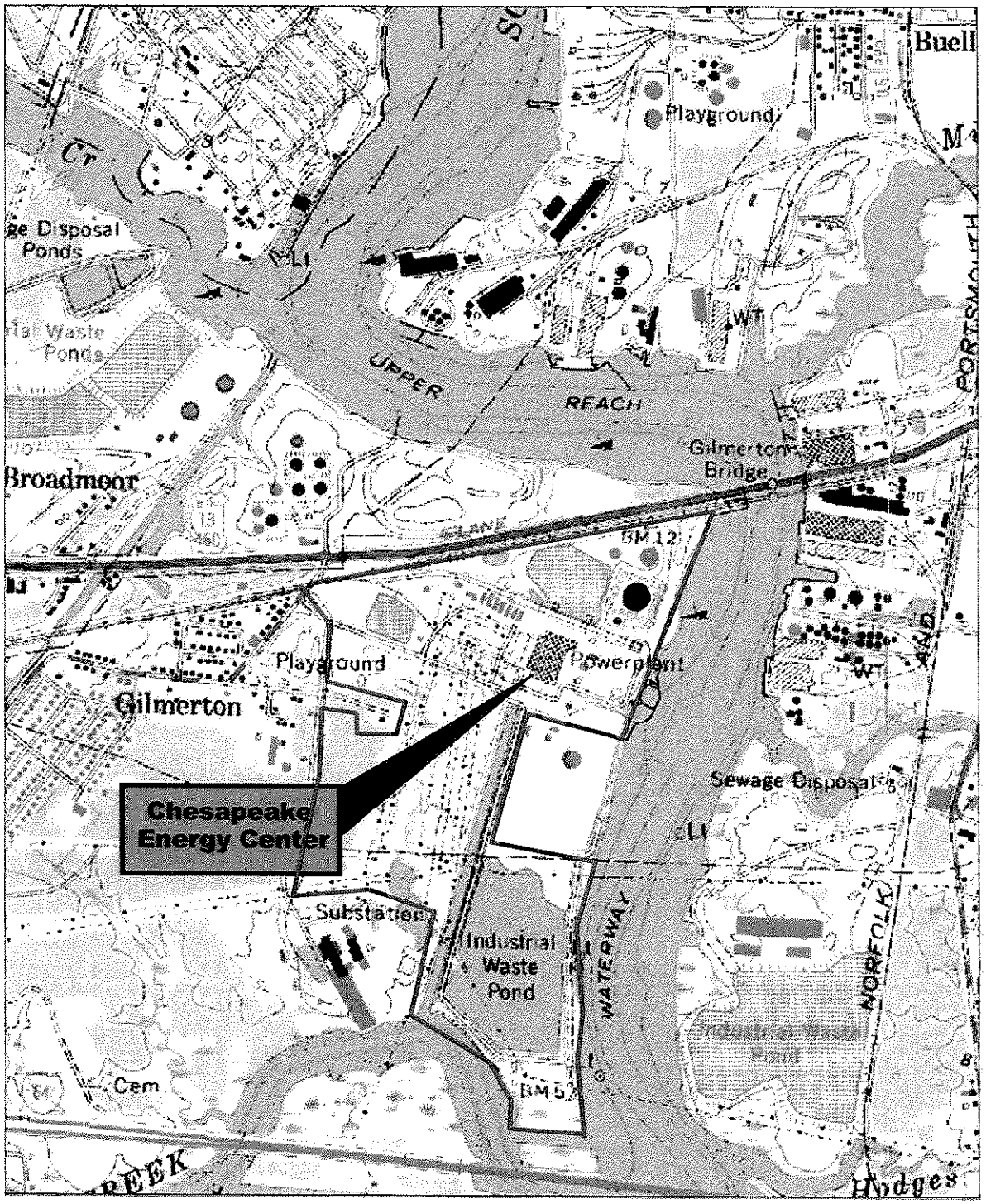
The last discharge from this pond was in November 2010. Original sampling was performed on 10/29/10 with a comment noting that "These will be used for discharging in November". Results obtained for the October sampling showed the iron results at 1.4 mg/L, which is above the 1.0 mg/L Permit limit. Comments were observed indicating the need for further treatment for lowering the iron. Treatment does include addition of calcium hydroxide with recirculation of the pond water. Samples were then taken 11/16/10 with all parameters below the Permit limits and a discharge was stated at 0836 on 11/24/11.

Several concerns for the current sampling methodology and reporting are found. The samples obtained are representative of the pond conditions at the time of sampling. These results are not necessarily representative of the discharge occurring several days later. With some parameters dependent on temperature and pH, there could be significant differences from the time of the sampling to the time of the discharge. As currently written, though not operated in this manner, the facility could discharge months after the sampling event as long as no further wastewater is added to the basin.

Discussing this with both facility and agency personnel, nothing was provided that a comparison study was conducted to verify there was no difference. This issue was originally brought to the Permit writer's attention and will be addressed in the issuance of the new permit.

ATTACHMENT 2

DISCHARGE LOCATION/TOPOGRAPHIC MAP



ENSR | AECOM

ENSR CORPORATION
4701 COX ROAD, SUITE 200
GLEN ALLEN, VA 23060
PHONE: (804) 290-2493
FAX: (804) 290-7921
WEB: HTTP://WWW.ENSR.AECOM.COM

QUADRANGLE:
NORFOLK SOUTH

NOT TO SCALE

SITE LOCATION MAP

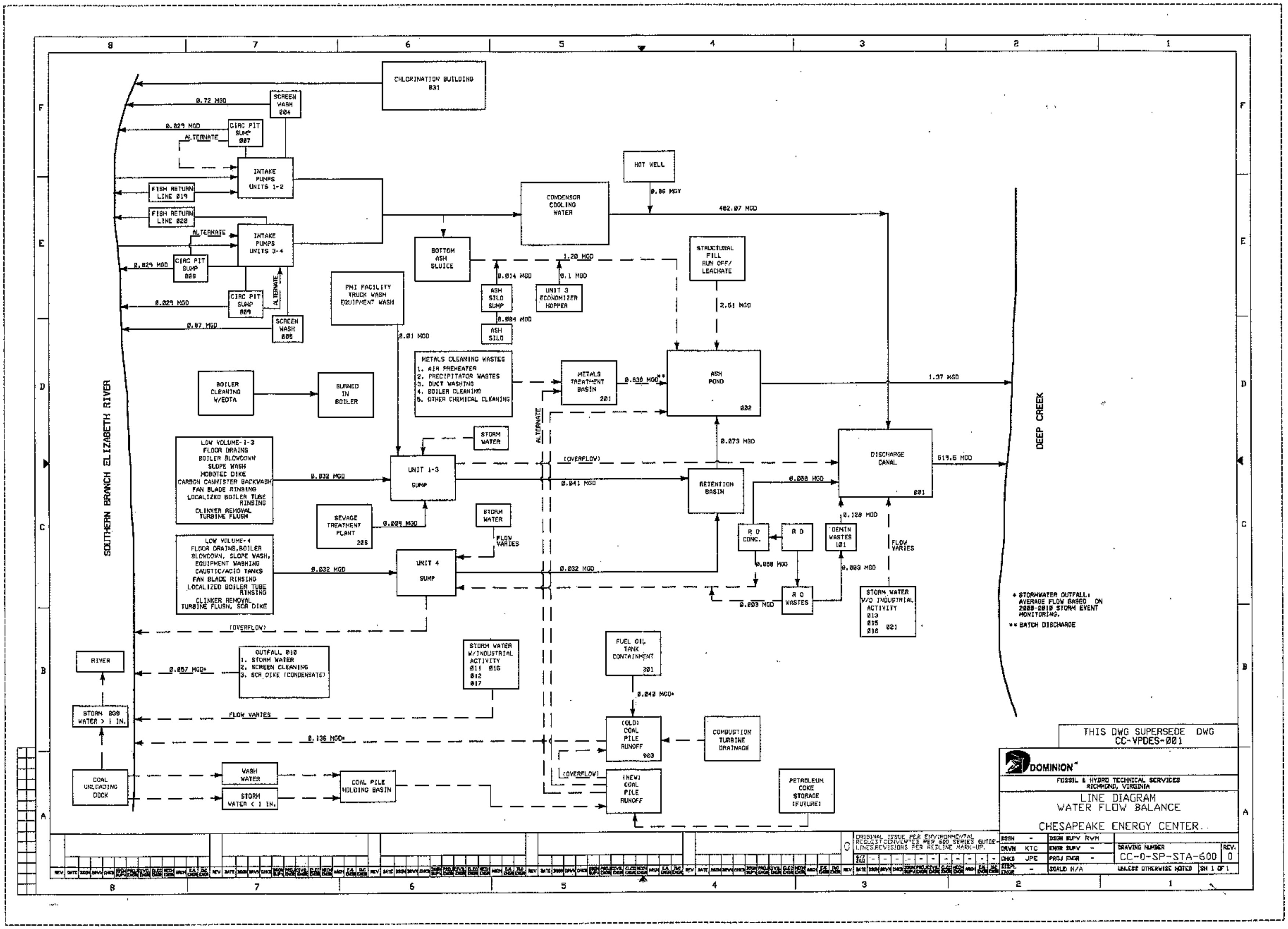
CHESAPEAKE ENERGY CENTER
CHESAPEAKE, VIRGINIA

FIGURE NUMBER: 1

DRAWN BY:	DATE:	PROJECT NUMBER:	DRAWING NUMBER:
LLM	6/15/07	02285-038	1 of 1

ATTACHMENT 3

SCHEMATIC/PLANS & SPECS/SITE MAP/ WATER BALANCE



CHLORINATION BUILDING 031
SCREEN WASH 004
0.72 MGD
0.029 MGD
CIRC PIT SUMP 007
ALTERNATE
INTAKE PUMPS UNITS 1-2
FISH RETURN LINE 019
FISH RETURN LINE 020
INTAKE PUMPS UNITS 3-4
CIRC PIT SUMP 008
CIRC PIT SUMP 009
SCREEN WASH 005
0.87 MGD
HOT WELL
0.86 MGY
CONDENSOR COOLING WATER
482.07 MGD
BOTTOM ASH SLUICE
1.20 MGD
0.1 MGD
0.014 MGD
ASH SILO SUMP
UNIT 3 ECONOMIZER HOPPER
ASH SILO
0.004 MGD
STRUCTURAL FILL RUN OFF/ LEACHATE
2.51 MGD
PMI FACILITY TRUCK WASH EQUIPMENT WASH
0.01 MGD
METALS CLEANING WASTES
1. AIR PREHEATER
2. PRECIPITATOR WASTES
3. DUCT WASHING
4. BOILER CLEANING
5. OTHER CHEMICAL CLEANING
METALS TREATMENT BASIN 201
0.030 MGD**
ASH POND 002
1.37 MGD
BOILER CLEANING W/EDTA
BURNED IN BOILER
SOUTHERN BRANCH ELIZABETH RIVER
DEEP CREEK
STORM WATER
ALTERNATE
LOW VOLUME-1-3
FLOOR DRAINS
BOILER BLOWDOWN
SLOPE WASH
MOBOTEC DIKE
CARBON CANNISTER BACKWASH
FAN BLADE RINSING
LOCALIZED BOILER TUBE RINSING
CLINKER REMOVAL
TURBINE FLUSH
0.032 MGD
UNIT 1-3 SUMP
(OVERFLOW)
0.041 MGD
0.073 MGD
RETENTION BASIN
DISCHARGE CANAL 001
619.6 MGD
0.008 MGD
SEWAGE TREATMENT PLANT 205
0.009 MGD
STORM WATER
FLOW VARIES
R O CONC.
R O
DEMIN WASTES 101
0.128 MGD
FLOW VARIES
LOW VOLUME-4
FLOOR DRAINS, BOILER BLOWDOWN, SLOPE WASH, EQUIPMENT WASHING
CAUSTIC/ACID TANKS
FAN BLADE RINSING
LOCALIZED BOILER TUBE RINSING
CLINKER REMOVAL
TURBINE FLUSH, SCR DIKE
0.032 MGD
UNIT 4 SUMP
0.032 MGD
0.008 MGD
0.003 MGD
R O WASTES
0.003 MGD
STORM WATER W/O INDUSTRIAL ACTIVITY
013
015 021
018
* STORMWATER OUTFALL: AVERAGE FLOW BASED ON 2008-2010 STORM EVENT MONITORING.
** BATCH DISCHARGE
(OVERFLOW)
RIVER
OUTFALL 010
1. STORM WATER
2. SCREEN CLEANING
3. SCR DIKE (CONDENSATE)
0.057 MGD*
STORM WATER W/INDUSTRIAL ACTIVITY
011 016
012
017
FUEL OIL TANK CONTAINMENT 301
0.040 MGD*
STORM 030 WATER > 1 IN.
FLOW VARIES
0.136 MGD*
(OLD) COAL PILE RUNOFF 003
COMBUSTION TURBINE DRAINAGE
COAL UNLOADING DOCK
WASH WATER
STORM WATER < 1 IN.
COAL PILE HOLDING BASIN
(OVERFLOW)
(NEW) COAL PILE RUNOFF
PETROLEUM COKE STORAGE (FUTURE)
THIS DWG SUPERSEDE DWG CC-VPDES-001
DOMINION
FOSSIL & HYDRO TECHNICAL SERVICES RICHMOND, VIRGINIA
LINE DIAGRAM
WATER FLOW BALANCE
CHESAPEAKE ENERGY CENTER
ORIGINAL ISSUE PER ENVIRONMENTAL REQUEST CONVERTED PER 600 SERIES GUIDE LINES REVISIONS PER REDLINE MARK-UP.
DSGN -
DSGN SUPV RWH
DRWN KTC
ENGR SUPV -
CHKD JPE
PROJ ENGR -
SCALE: N/A
DRAWING NUMBER CC-0-SP-STA-600
REV. 0
UNLESS OTHERWISE NOTED
SH 1 OF 1

ATTACHMENT 4

TABLE I - DISCHARGE/OUTFALL DESCRIPTION

TABLE I

NUMBER AND DESCRIPTION OF OUTFALLS

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2) (See attached)	FLOW (3 and 4)
001	36°45'45" 76°18'15"	Discharge Canal which includes: Once through cooling water condenser, Units 1-4; Demineralized wastes (101); reverse osmosis concentrate; stormwater outfalls 013, 015, 018, 021; Hotwell dumps		519.5 MGD
101	Internal Outfall to 001	Demineralizer wastes and reverse osmosis waste to 001		0.128 MGD
002	36°45'45" 76°18'15"	Ash pond; metals treatment basin (201); sewage treatment plant (206); low volume wastes from Units 1-3 including floor drains, boiler blowdown, slope wash, Mobotec dike drainage; Carbon canister backwash, fan blade rinsing, localized boiler tube rinsing, boiler clinker removal, turbine flush water; low volume waste Unit 4 including floor drains, boiler blowdown, slope wash, equipment washing, caustic/acid tank dikes, fan blade rinsing, localized boiler tube rinsing, boil clinker removal , turbine wash water, SCR dike; bottom ash sluice; Unit 3 economizer hopper; structural fill run off/leachate; ash silo sump including truck wash and PMI facility; coal pile runoff and coal dock wash water; and reverse osmosis concentrate		1.37 MGD

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2) (See attached)	FLOW (3 and 4)
201	Internal Outfall to 002	Metals treatment basin (cleaning wastes including air preheater wash water, precipitator wash water, duct wash water, chemical boiler cleaning, other chemical cleaning		Batch Discharge
206	Internal Outfall to 002	Sewage Treatment Plant		0.009 MGD
004	36°46'15" 76°18'0"	Screen backwash units 1&2		0.72 MGD
005	36°46'15" 76°18'0"	Screen backwash units 3&4		0.87 MGD
007	36°46'15" 76°18'0"	River recirculation pit sump units 1&2		0.029 MGD
008	36°46'15" 76°18'0"	River recirculation pit sump unit 3		0.029 MGD
009	36°46'15" 76°18'0"	River recirculation pit sump units 4		0.029 MGD
019	36°46'15" 76°18'0"	Fish return line units 1&2		Varies
020	36°46'15" 76°18'0"	Fish return line units 3&4		Varies
031	36°46'15" 76°18'0"	Chlorination building (uncontaminated river water)		Drain plugged, has not discharged
003	36°46'30" 76°18'0"	Coal pile runoff, bermed bulk fuel oil storage area runoff (301), combustion turbine area runoff, coal dock storm water and wash water overflow		0.062 MGD
301	36°46'30" 76°18'0"	Storm water from bermed bulk fuel oil storage area		0.002 MGD valved and batch discharge

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2) (See attached)	FLOW (3 and 4)
010	36°46'15" 76°18'0"	Storm water from ash silos areas and truck wash		0.011 MGD
011	36°46'30" 76°17'30"	Storm water from loop (rail) track area that includes construction maintenance laydown area (steel fabrication, portable diesel and gasoline storage, equipment storage, lime staging, south oil storage tank and material/ equipment/laydown)		0.010 MGD valved and batch discharge
012	36°46'30" 76°18'0"	Storm water runoff from dismantled diesel tank diked area and loop track area		0.008 MGD Valved and batch discharge
013	36°46'0" 76°18'15"	Storm water runoff from small area adjacent to the natural gas storage facility and haul road		0.001 MGD
015	36°46'15" 76°18'15"	Storm water runoff from drainage area adjacent to and including the training center		0.001 MGD
016	36°46'15" 76°18'0"	Storm water runoff from road providing ingress and egress for the ash silos, warehouse docks, sewage treatment building, ash haul road and scales, a laydown area, carbon burn out operations (CBO)		0.004 MGD
017	36°45'57" 76°18'0"	Storm water runoff from portion of the warehouse roof, storage yard and ash haul road with possible groundwater associated		0.005

OUTFALL NO.	DISCHARGE LOCATION	DISCHARGE SOURCE (1)	TREATMENT (2) (See attached)	FLOW (3 and 4)
018	36°46'0" 76°18'15"	Storm water runoff from the station and visitor parking areas, a substation adjacent to the visitor parking area, pavilion area, undeveloped area west of discharge canal, and east southeast area of the metals pond		0.083 MGD
021	36°46'15" 76°18'15"	Storm water runoff from drainage area adjacent to, and including the front of the administration building		0.002 MGD
030	36°45'45" 76°18'15"	Storm water runoff from the coal unloading dock		0.001 MGD Currently all water goes to the coal pile treatment pond there has been no discharge

(1) List operations contributing to flow
(2) Give brief description, unit by unit
(3) Give maximum 30-day average flow for industry - provided for in application
(4) Storm water flow estimates calculated using 0.011 ft average rainfall values, 0.9 runoff coefficient for impervious surfaces and 0.6 runoff coefficient for pervious surfaces.

ATTACHMENT 5

TABLE II - EFFLUENT MONITORING/LIMITATIONS

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 001
Outfall Description: Once through condenser cooling water; demineralizer regeneration waste and reverse osmosis waste water (101); units 1-3 sump overflow; hotwell dumps
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NL	NA	NL	1/Day	Est
pH (S.U.)	3		NA	6.0	9.0	2/Month	Grab
Total Residual Chlorine (mg/l) [a] [b]	2		.021	NA	.026	2/Month	Grab
Total Phosphorus (mg/l)	3		2.0	NA	NA	1/3 Months	Grab
Total Nitrogen (mg/l)	3		NL	NA	NA	1/3 Months	Grab
Temperature (°C)	2		NA	NA	[c]	1/Year	[c]
Heat Rejection (BTU/HR)	3		3.55 x 10 (9)	NA	NA	Continuous	Recorded

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY
1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31); 2nd quarter (April 1 - June 30); 3rd quarter (July 1 - September 30); 4th quarter (October 1 - December 31).
1/Year = Between January 1 and December 31.
Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.D.5. and I.D.6. for quantification levels and reporting requirements, respectively.
[b] See Part I.D.15. for Total Residual Discharge Duration.
[c] See Part I.D.14 for Thermal Mixing Zone Requirements.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

The basis for the limitations codes are:
1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 002
Outfall Description: Ash pond; metals treatment basin (201); sewage treatment plant (206); low volume wastes Units 1-3; low volume waste Unit 4; bottom ash sluice; Unit 3 economizer hopper; structural fill run off/leachate; ash silo sump including truck wash, PMI facility; coal pile/dock runoff; reverse osmosis concentrate
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NL	NA	NL	2/Month	Est
pH (S.U.)	3		NA	6.0	9.0	2/Month	Grab
Total Residual Chlorine (mg/l) [a]	2		.026	NA	.026	1/3 Months	Grab
Total Phosphorus (mg/l)	3		2.0	NA	NA	1/3 Months	Grab
Total Nitrogen (mg/l)	3		NL	NA	NA	1/3 Months	Grab
Oil & Grease (mg/l)	1		15	NA	20	2/Month	Grab
Total Suspended Solids (mg/l)	1		30	NA	50	2/Month	Grab
Ammonia (mg/l)[a]	3		NL	NA	NL	2/Month	Grab
Dissolved Copper (ug/l) [a] [b]	3		NA	NA	NL	1/6 Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31); 2nd quarter (April 1 - June 30); 3rd quarter (July 1 - September 30); 4th quarter (October 1 - December 31).

1/6 Months = In accordance with the following schedule: 1st half (January 1 - June 30); 2nd half (July 1 - December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.D.5. and I.D.6. for quantification levels and reporting requirements, respectively.
[b] See Part I.B. for Boiler Cleaning/Metals Requirements.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 003
Outfall Description: Regulated storm water from coal pile runoff, bermed bulk storage fuel area runoff (301), combustion turbine area runoff, and coal dock storm water and wash water overflow
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NA	NA	NL	1/6 Months	Est
pH (S.U.)	1		NA	6.0	9.0	1/6 Months	Grab
TSS (mg/l) [a]	1		NA	NA	50	1/6 Months	Grab
TPH (mg/l) [b] [c]	3		NA	NA	NL	1/6 Months	Grab
Dissolved Copper (ug/l) [b]	3		NA	NA	NL	1/6 Months	Grab
Dissolved Zinc (ug/l) [b]	3		NA	NA	NL	1/6 Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following schedule: 1st half (January 1 - June 30); 2nd half (July 1 - December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Part I.D.12. for overflow of untreated coal pile runoff from a 10-Year/24-Hour Storm.
[b] See Parts I.D.5. and I.D. 6. For quantification levels and reporting requirements.
[c] TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846

Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons. If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 010
Outfall Description: Storm water from areas surrounding ash silos and truck wash
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS [a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE [d]
Flow (MG)	3		NA	NA	NL	1/6 Months	Est [c]
pH (S.U.)	3		NA	NL	NL	1/6 Months	Grab
TSS (mg/l) [b]	3		NA	NA	NL	1/6 Months	Grab
TPH (mg/l) [b] [e]	3		NA	NA	NL	1/6 Months	Grab
Dissolved Copper (ug/l) [b]	3		NA	NA	NL	1/Year	Grab
Dissolved Arsenic (ug/l) [b]	3		NA	NA	NL	1/Year	Grab
Dissolved Lead (ug/l) [b]	3		NA	NA	NL	1/Year	Grab
Dissolved Zinc (ug/l) [b]	3		NA	NA	NL	1/Year	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/6 Months = In accordance with the following schedule: 1st half (January 1 - June 30); 2nd half (July 1 - December 31).
1/Year = Between January 1 and December 31.

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Part I.D.9.
[b] See Part I.D.5. and I.D.6. for quantification levels and reporting requirements, respectively.

[c] Estimate of the total volume of the discharge during the storm event.
[d] The grab samples shall be taken within the first hour but not later than 24 hours of the discharge.
[e] TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons. If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 031
Outfall Description: Uncontaminated river water from the chlorination building
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NA	NA	NL	1/Year	Est
pH (S.U.)	3		NA	NL	NL	1/Year	Grab
Total Residual Chlorine (ug/l) [a]	3		NA	NA	NL	1/Year	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/Year = Between January 1 and December 31.

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.D.5. and I.D.6. for quantification levels and reporting requirements, respectively.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

3. There shall be no discharge from strainer cleaning to this outfall.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 101 (internal outfall to 001)
Outfall Description: Demineralizer regeneration wastes and reverse osmosis wastes
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NL	NA	NL	1/3 Months	Est
Oil & Grease (mg/l)	1		15	NA	20	1/3 Months	Grab
Total Suspended Solids (mg/l)	1		30	NA	100	1/3 Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31); 2nd quarter (April 1 - June 30); 3rd quarter (July 1 - September 30); 4th quarter (October 1 - December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 201
Outfall Description: Metals treatment basin
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS [a]	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NL	NA	NL	1/Month	Est
Total Suspended Solids (mg/l)	1		30	NA	100	1/Month	Grab
Oil & Grease (mg/l)	1		15	NA	20	1/Month	Grab
Total Copper (mg/l)	1		1	NA	1	1/Month	Grab
Total Iron (mg/l)	1		1	NA	1	1/Month	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

[a] Unless otherwise approved, the sample shall be collected at the tap in the recirculation line. No wastewater shall be added to the basin after sample is collected prior to discharge for the sample period (sample period is 30 days).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 206
Outfall Description: Sewage treatment plant
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MGD)	3		NA	NA	NL	1/Month	Est
Total Residual Chlorine (mg/l)[a]	3		NA	1.5	NA	1/Month	Grab
Enterococci (N/100ml) [a]	3		NA	NA	NL	1/Month	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Part I.C. for Alternative Disinfection and Enterococci Monitoring.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 301
Outfall Description: Storm water from bermed bulk oil storage area
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

PARAMETER & UNITS	BASIS FOR LIMITS	MULTIPLIER OR PRODUCTION	EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
			MONTHLY AVERAGE	MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE
Flow (MG)	3		NA	NA	NL	1/3 Months	Grab
TPH (mg/l) [a] [b]	3		NA	NA	30	1/3 Months	Grab

NA = NOT APPLICABLE; NL = NO LIMIT, MONITORING REQUIREMENT ONLY

1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31); 2nd quarter (April 1 - June 30); 3rd quarter (July 1 - September 30); 4th quarter (October 1 - December 31).

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Parts I.D.5. and I.D.6. for quantification levels and reporting requirements, respectively.
[b] TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons. If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.

There should be no discharge of tank bottom waters.

The basis for the limitations codes are:

1. Technology (e.g., Federal Effluent Guidelines)
2. Water Quality Standards (9 VAC 25-260 et. seq.)
3. Best Professional Judgment

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 004 and 005 (screen backwash units); 007, 008, and 009 (river recirculation pits); 019 and 020 (fish return lines)
Outfall Description: Discharge of unaltered waters as they are drawn from the source supply
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

THESE DISCHARGES SHALL ONLY CONTAIN RIVER WATER FROM THE SCREEN BACKWASH UNITS, RIVER RECIRCULATION PITS AND FISH RETURN LINES. NO PROCESS WATER SHALL BE DISCHARGED FROM THESE OUTFALLS. NO MONITORING IS REQUIRED

TABLE II - INDUSTRIAL EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 013, 015, 018 and 021
Outfall Description: Storm water not associated with a regulated industrial activity
SIC CODE: 4911

(x) Final Limits ( ) Interim Limits Effective Dates - From: Issuance To: Expiration

THESE OUTFALLS SHALL ONLY CONTAIN STORM WATER NOT ASSOCIATED WITH A REGULATED INDUSTRIAL ACTIVITY WHERE NO MONITORING IS REQUIRED. NO PROCESS WATER SHALL BE DISCHARGED FROM THESE OUTFALLS.

2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

TABLE II - STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 011 and 012
Outfall Description: Regulated storm water runoff from industrial activity areas including the loop track area and fuel oil storage area
SIC CODE: 4911

NOTE: These outfalls represent storm event monitoring for existing process and/or non-process outfalls.

PARAMETER & UNITS	STORM CATEGORY 1-29* or BPJ	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS [a]	
		MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE [b]
Flow (MG)	14	NA	NL	1/Year	Estimate
pH (S.U.)	14	NL	NL	1/Year	Grab
TSS (mg/l) [c]	14	NA	NL	1/Year	Grab
TPH (mg/l) [c] [d]	BPJ	NA	NL	1/Year	Grab
Dissolved Copper (ug/l) [c]	14	NA	NL	1/Year	Grab
Dissolved Zinc (ug/l) [c]	14	NA	NL	1/Year	Grab

1/Year = Between January 1 and December 31.

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Part I.F.1. for sampling methodology and reporting requirements.
[b] The grab sample shall be taken within the first hour but not later than 24 hours of the discharge.
[c] See Parts I.D.5. and I.D.6. for quantification levels and reporting requirements, respectively.
[d] TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons.

If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.

There shall be no discharge of tank bottom waters.
2. There shall be no discharge of floating solids or visible foam in other than trace amounts.

The basis for the limitations codes are:

A. Technology (e.g., Federal Effluent Guidelines)
B. Water Quality Standards (9 VAC 25-260 et. seq.)
C. Best Professional Judgment

*STORM REGS.-- CATEGORIES THAT REQUIRE MONITORING: [PICK AS APPROPRIATE]

(1) Timber Products
(2) Paper & Allied Products
(3) Chemical & Allied Products
(4) Asphalt Paving/Roofing Materials & Lubricant
(5) Glass, Clay, Cement, Concrete & Gypsum Products
(6) Primary Metals
(7) Metal Mining (Ore Mining & Dressing)
(8) Coal Mines & Coal Mining Related
(9) Oil & Gas Extraction & Petroleum Refineries
(10) Hazardous Waste Treatment, Storage, Disposal
(11) Landfills, Land Application Sites & Open Dumps
(12) Automobile Salvage Yards
(13) Scrap/Waste Recycling
(14) Steam Electric Power Generating, Inc. Coal Handling Areas
(15) Motor Freight, Passenger, Rail, U.S. Postal Transportation & Petroleum Bulk Oil Stations and Terminals
(16) Water Transportation With Maintenance and/or Equipment Cleaning
(17) Ship/Boat Building or Repairing
(18) Vehicle Maintenance, Equipment Cleaning or Deicing Areas At Air Transportation Facilities
(19) Treatment Works
(20) Food & Kindred Products
(21) Textile Mills, Apparel & Other Fabric Products Mfg.
(22) Wood & Metal Furniture and Fixture Mfg.
(23) Printing & Publishing
(24) Rubber, Miscellaneous Plastic Products & Miscellaneous Mfg.
(25) Leather Tanning & Finishing
(26) Fabricated Metal Products
(27) Transportation Equipment, Industrial or Commercial Machinery Mfg.
(28) Electronic & Electrical Equipment and Components, Photographic & Optical Goods Mfg.
(29) Nonclassified Facilities

TABLE II - STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 016 and 017
Outfall Description: Regulated storm water runoff from an industrial activity area. (These outfalls are considered substantially identical; outfall 016 may be sampled as a representative outfall for outfall 017; sample results shall be reported for both outfalls.)
SIC CODE: 4911

NOTE: These outfalls represent storm event monitoring for existing process and/or non-process outfalls.

PARAMETER & UNITS	STORM CATEGORY 1-29* or BPJ	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS [a]	
		MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE [c]
Flow (MG)	14	NA	NL	1/3 Months	Estimate [b]
pH (S.U.)	14	NL	NL	1/Year	Grab
TSS (mg/l)[d]	14	NA	NL	1/Year	Grab
TPH (mg/l)[d][e]	BPJ	NA	NL	1/Year	Grab
Dissolved Copper (ug/l) [d]	14	NA	NL	1/Year	Grab
Dissolved Zinc (ug/l) [d] [f]	14	NA	NL	1/3 Months	Grab

1/3 Months = In accordance with the following schedule: 1st quarter (January 1 - March 31); 2nd quarter (April 1 - June 30); 3rd quarter (July 1 - September 30); 4th quarter (October 1 - December 31).
1/Year = Between January 1 and December 31.

These outfalls are considered substantially identical; 016 may be sampled for 017; sample results shall be reported for both outfalls.

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Part I.F.1. for sampling methodology and reporting requirements.
[b] Estimate of the total volume of the discharge during the storm event.
[c] The grab sample shall be taken within the first hour but not later than 24 hours of the discharge.

[d] See Parts I.D.5. and I.D6. for quantification levels and reporting requirements, respectively.
[e] TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons. If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.
[f] See Part I.F. for Storm Water Evaluation requirements.

The basis for the limitations codes are:

A. Technology (e.g., Federal Effluent Guidelines)
B. Water Quality Standards (9 VAC 25-260 et. seq.)
C. Best Professional Judgment

*STORM REGS.-- CATEGORIES THAT REQUIRE MONITORING:

(1) Timber Products
(2) Paper & Allied Products
(5) Chemical & Allied Products
(6) Asphalt Paving/Roofing Materials & Lubricant
(6) Glass, Clay, Cement, Concrete & Gypsum Products
(6) Primary Metals
(8) Metal Mining (Ore Mining & Dressing)
(8) Coal Mines & Coal Mining Related
(9) Oil & Gas Extraction & Petroleum Refineries
(10) Hazardous Waste Treatment, Storage, Disposal
(11) Landfills, Land Application Sites & Open Dumps
(12) Automobile Salvage Yards
(13) Scrap/Waste Recycling
(14) Steam Electric Power Generating, Inc. Coal Handling Areas
(15) Motor Freight, Passenger, Rail, U.S. Postal Transportation & Petroleum Bulk Oil Stations and Terminals
(16) Water Transportation With Maintenance and/or Equipment Cleaning
(17) Ship/Boat Building or Repairing
(18) Vehicle Maintenance, Equipment Cleaning or Deicing Areas At Air Transportation Facilities
(19) Treatment Works
(20) Food & Kindred Products
(21) Textile Mills, Apparel & Other Fabric Products Mfg.
(22) Wood & Metal Furniture and Fixture Mfg.
(23) Printing & Publishing
(24) Rubber, Miscellaneous Plastic Products & Miscellaneous Mfg.
(25) Leather Tanning & Finishing
(26) Fabricated Metal Products
(27) Transportation Equipment, Industrial or Commercial Machinery Mfg.
(28) Electronic & Electrical Equipment and Components, Photographic & Optical Goods Mfg.
(29) Nonclassified Facilities

TABLE II - STORM WATER EFFLUENT LIMITATIONS/MONITORING

OUTFALL # 030
Outfall Description: Regulated storm water runoff from an industrial activity area - coal unloading dock after the first 1.0 inches of precipitation is collected for treatment
SIC CODE: 4911

NOTE: These outfalls represent storm event monitoring for existing process and/or non-process outfalls.

PARAMETER & UNITS	STORM CATEGORY 1-29 or BPJ	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS [a]	
		MINIMUM	MAXIMUM	FREQUENCY	SAMPLE TYPE [c]
Flow (MG)	14	NA	NL	1/Year	Estimate [b]
pH (S.U.)	14	NL	NL	1/Year	Grab
TSS (mg/l) [d]	14	NA	NL	1/Year	Grab
TPH (mg/l)[d][e]	BPJ	NA	NL	1/Year	Grab

1/Year = Between January 1 and December 31.

Upon issuance of the permit, Discharge Monitoring Reports (DMRs) shall be submitted to the regional office at the frequency required by the permit regardless of whether an actual discharge occurs. In the event that there is no discharge for the monitoring period, then "no discharge" shall be reported on the DMR.

[a] See Part I.F.1. for sampling methodology and reporting requirements.
[b] Estimate of the total volume of the discharge during the storm event.
[c] The grab sample shall be taken within the first hour but not later than 24 hours of the discharge.
[d] See Parts I.D.5 and I.D.6 for quantification levels and reporting requirements.
[e] TPH is the sum of individual gasoline range organics and diesel range organics or TPH-GRO and TPH-DRO to be measured by EPA SW 846 Method 8015C (2007) for gasoline and diesel range organics, or by EPA SW 846 Methods 8260B (1996) and 8270D (2007). If the combination of Methods 8260B and 8270D is used, the lab must report the total of gasoline range organics, diesel range organics and polynuclear aromatic hydrocarbons. If both are "less than", then report the TPH as less than the sum of the two reporting limits (QLs) or <1.0 mg/L.

The basis for the limitations codes are:

A. Technology (e.g., Federal Effluent Guidelines)
B. Water Quality Standards (9 VAC 25-260 et. seq.)
C. Best Professional Judgment

*STORM REGS.-- CATEGORIES THAT REQUIRE MONITORING:

(1) Timber Products
(2) Paper & Allied Products
(7) Chemical & Allied Products
(8) Asphalt Paving/Roofing Materials & Lubricant
(7) Glass, Clay, Cement, Concrete & Gypsum Products
(6) Primary Metals
(9) Metal Mining (Ore Mining & Dressing)
(8) Coal Mines & Coal Mining Related
(9) Oil & Gas Extraction & Petroleum Refineries
(10) Hazardous Waste Treatment, Storage, Disposal
(11) Landfills, Land Application Sites & Open Dumps
(12) Automobile Salvage Yards
(13) Scrap/Waste Recycling
(14) Steam Electric Power Generating, Inc. Coal Handling Areas
(15) Motor Freight, Passenger, Rail, U.S. Postal Transportation & Petroleum Bulk Oil Stations and Terminals
(16) Water Transportation With Maintenance and/or Equipment Cleaning
(17) Ship/Boat Building or Repairing
(18) Vehicle Maintenance, Equipment Cleaning or Deicing Areas At Air Transportation Facilities
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(22) Wood & Metal Furniture and Fixture Mfg.
(23) Printing & Publishing
(24) Rubber, Miscellaneous Plastic Products & Miscellaneous Mfg.
(25) Leather Tanning & Finishing
(26) Fabricated Metal Products
(27) Transportation Equipment, Industrial or Commercial Machinery Mfg.
(28) Electronic & Electrical Equipment and Components, Photographic & Optical Goods Mfg.
(29) Nonclassified Facilities